

NOTES ON AMERICAN PHYMATIDAE III

(HEMIPTERA-HETEROPTERA)

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I wish to express my sincere thanks to Drs. J. F. Gates Clarke and Carl J. Drake, of the United States National Museum, Washington, D. C., Dr. Thomas H. Farr, of the Institute of Jamaica, Kingston, Jamaica, and Dr. A. Soos, of the Hungarian National Museum, Budapest, for the privilege of studying unidentified Phymatidae from the collections of their respective Institutions.

Among them the most striking were, a new species of the genus *Phymata* Latreille, 1802, from Jamaica, with fore femora covered with long, erect bristles, a unique case among Phymatinae, and a new genus and species, also from Jamaica, both collected by Dr. T. H. Farr. The new genus, the fifth in the subfamily, I propose to name *Kelainocoris* n.g. (*Kelaino* = one of Pleiades, and also = dark, *coris* = a bug).

The five genera of the Phymatinae may be separated by the following key:

1. Middle and hind tibiae with the upper side carinate laterally and sulcate medially 2
 Middle and hind tibiae convex on the upper side, neither carinate, nor sulcate 3
2. Fore femora subtriangular, more or less swollen.....
 **Phymata** Latreille, 1802
 Fore femora elongately ovate, constricted in the middle, and with a ring-shaped carina on the exterior side of the fore lobe.....
 **Paraphymata** Kormilev, 1962
3. First rostral segment (visible) twice as long as the second; sutures between sterna II to V indistinct..... **Kelainocoris** n.g.
 First rostral segment at most as long as the second; suture between sterna II and III at most indistinct..... 4
4. Fore femora subtriangular, swollen and scabrous; suture between sterna II and III clearly visible..... **Anthylla** Stål, 1876
 Fore femora elongately ovate, completely flat and glossy exteriorly, as if polished; suture between sterna II and III indistinct.....
 **Neoanthylla** Kormilev, 1951

1. Subfamily PHYMATINAE A.S., 1943

Genus **Phymata** Latreille, 1802

1. **Phymata interjecta** Dudich, 1922

Phymata marginata var. *interjecta* Dudich, 1922, Ann. Mus. Nat. Hungarici; 19: 164.

5 ♂ & 2 ♀, Hispanola, Haiti, Furey—M. W. Sanderson & T. H. Farr coll., May 16, 1959.

2. *Phymata jamaicensis* n.sp.

(Fig. 1-2)

Male. Moderately elongate, with reflexed lateral angles of the pronotum and abdomen.

Head as long as wide through the eyes (δ -17:17, ♀ -18:17.5); (20 units = 1 mm.); frontal processes short and blunt, slightly incised in front; preocellar processes placed at the same level as the frontal portion of the head; ocellar processes dentiform. Proportions of the antennal segments, I to IV, are: δ -5:6.5:8:12.5, ♀ -5:7.5:10:12.

Pronotum shorter than wide across lateral angles (δ -27:45, ♀ -36:55), sloping anteriorly. Anterior angles short, form a right (δ), or obtuse (♀) angles. Antero-lateral-anterior borders (from anterior angles to lateral notch) more (δ), or less (♀) strongly curved. Lateral notch deep, angular (δ), or less deep and rounded (♀). Antero-lateral-posterior borders (from lateral notch to lateral angles) strongly curved. Lateral angles produced obliquely upward as small, triangular, almost dentiform, lobes, more acute in the male, but the tips themselves are blunt. Postero-lateral-anterior borders (between lateral and postero-lateral angles) short and more (δ), or less (♀) sinuate. Postero-lateral angles acute; posterior processes minute. Fore disc with a smooth, inverted triangle in the middle anteriorly; rugose and finely granulate at the bases of the pronotal carinae. Hind disc more or less roughly punctured. Carinae parallel between themselves, densely granulate anteriorly; provided with a small tubercle, or knob on the highest point; slightly divergent posteriorly.

Scutellum shorter than wide at the base (δ -9.5:14, ♀ -21:18); median carina high, cruceiform, granulate; lateral borders granulate near the tip.

Hemelytra. Corium very finely punctured, and with a few fine granules; membrane yellowish, with an elongate, brown spot at the base; venation simple.

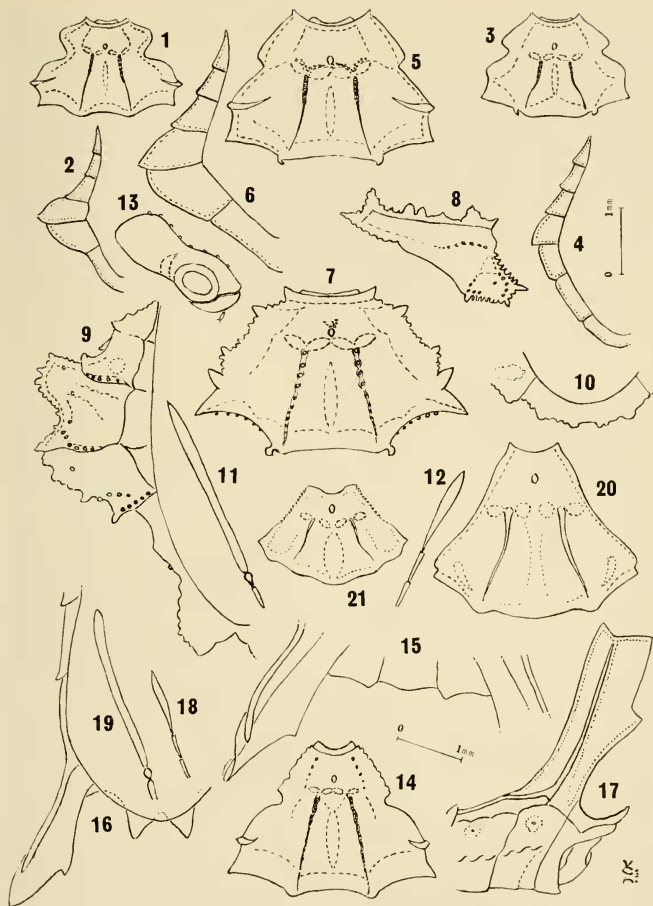
Abdomen shorter than wide (δ -50:54, actual width 60; ♀ -70:80, actual width 87; as lateral angles of the abdomen are raised it is given "width" as taken perpendicularly to the disc of the abdomen, and "actual width" as if abdomen was unrolled). Antero-lateral borders firstly sinuate (segments II to IV), then convex (V). Lateral angles form a right (δ), or slightly obtuse (♀) angle. Postero-lateral borders angularly sinuate (δ), or straight (♀); hind border rounded. PE-angles (postero-exterior of connexiva II to IV) not produced.

Pleurae: fore border finely denticulate; disc finely granulate; antennal groove reaches to the lateral notch of the pronotum.

Fore femora subtriangular, swollen, longer than wide (δ -18:11, ♀ -23:13), with a row of fine teeth on the upper border, sparsely and finely granulate on the disc.

Color. Male, pale testaceous; transversal band of the pronotum light brown; basal portion of the corium, transversal band of the abdomen, and lateral angles of the venter, brown to chestnut brown; middle of the corium pink with whitish veins; venter yellow. Female ivory with pale brown to brown bands and spots; middle of the corium pinkish; pleurae and venter yellow. Some females have color of males.

Total length: δ -5.1, ♀ -6.25 mm.; width of the pronotum: δ -2.25, ♀ -2.75 mm.; width of the abdomen: δ -2.7, ♀ -4.0 mm.



Phymata jamaicensis n.sp. Fig. 1. ♂, pronotum; fig. 2. *Phymata jamaicensis* n.sp. ♂ connexivum. *Phymata elongata* n.sp. Fig. 3. ♀, pronotum; fig. 4. connexivum. *Phymata variegata* n.sp. Fig. 5. ♂, pronotum; fig. 6. connexivum. *Phymata pilifera* n.sp. Fig. 7. ♂, pronotum; fig. 8. propleuron; fig. 9. connexivum; fig. 10. ♀, tip of the abdomen; fig. 11. ♂, antenna; fig. 12. ♀, antenna. *Paraphymata saileri* Kormilev. Fig. 13. ♂, fore femur and fore tibia. *Kelainocoris farri* n.g. Fig. 14. n.sp., ♂, pronotum; fig. 15. ♀, lobe and the tip of abdomen; fig. 16. ♂, lobe and the tip of abdomen; fig. 17. ♂, lobe and the tip of abdomen; side view; fig. 18. ♀, antenna; fig. 19. ♂, antenna. *Macrocephalus testaceus* n.sp. Fig. 20. ♀, pronotum. *Macrocephalus dominicanus* n.sp. Fig. 21. ♂, pronotum.

Holotype: ♂, Jamaica, W. I., St. Andrew, Ferry—T. H. Farr coll. July 26, 1955; deposited in the Institute of Jamaica, Kingston, Jamaica.

Allotype: ♀, Jamaica, W. I., St. Thomas, Holland Bay—T. H. Farr coll. Nov. 28, 1954; deposited in the same collection.

Paratypes: 1 ♂ and 3 ♀, Jamaica, W. I., St. Mary, Aleppo; Manchester, and St. Andrew; in the same collection, and in the collection of the author.

Phymata jamaicensis n.sp. is allied to *Ph. minuta* Kormilev, 1962, from Honduras. It is of the same size and general appearance, but differs from the latter by: antero-lateral-anterior borders of the pronotum curved posteriorly; the lateral notch is deeper, and antero-lateral-posterior borders much more convex; lateral angles of the pronotum produced into blunt teeth; antero-lateral borders of the abdomen more sinuate, and postero-lateral angularly sinuate (♂).

3. *Phymata elongata* n.sp.

(Fig. 3-4)

Female, elongate, twice as long as wide across abdomen.

Head slightly longer than wide through the eyes (17.5:16.5). Frontal processes short, blunt, slightly incised in front; preocellar processes tiny, do not rise above the frontal portion of the head. Granulation fine, dense, semispiculoid, or spiculoid (at occiput). Antennae slender; proportions of the antennal segments, I to IV, are: 5:7.5:10:13.

Pronotum shorter than wide across postero-lateral angles (the maximal width) (30:42). Disc strongly sloping anteriorly. Anterior angles form an obtuse angle; antero-lateral-anterior borders barely curved, almost straight, and finely granulate; lateral notch deep and narrow; antero-lateral-posterior borders slightly curved; lateral angles subangular, not produced, form an obtuse angle; postero-lateral-anterior borders shallowly sinuate; postero-lateral angles obtuse, horizontal; posterior processes minute. Fore disc finely and densely granulate; hind disc strongly convex, finely punctured; carinae slender, parallel between themselves, and finely granulate, anteriorly, then divergent and without granulation.

Scutellum shorter than wide at the base (10:14); median carina cross-shaped, granulate; disc and lateral borders with a few granules.

Hemelytra. Corium with a few, semiobliterated granules; membrane with veins simple.

Abdomen longer than wide (60:53, actual width 55). Antero-lateral borders slightly sinuate at the base, then a little curved; lateral angles form an obtuse angle, but the tips of segment V are acute; PE-angles angularly produced; postero-lateral borders straight, posterior rounded. Connexivum rather narrow; venter smooth, without granulation.

Propleura with anterior border sinuate and granulate, but not denticulate; disc granulate; antennal groove deep, reaches to the lateral notch of the pronotum. Meso and metapleura densely granulate.

Fore femora relatively small, longer than wide (20:12), swollen; upper border with a row of inclined, setigerous granules; disc finely and sparsely granulate.

Color: yellow to orange; hind disc of the pronotum, and scutellum, yellow brown; transversal bands of the pronotum and abdomen, hind half of the pro-

pleura, entire meso and metapleura, and lateral angles of the venter, reddish brown, veins along membrane carmine-red.

Total length 5.5 mm.; width of the pronotum 2.1 mm.; width of the abdomen 2.75 mm.

Holotype: ♀, Perú, Marepata; deposited in the Hungarian National Museum, Budapest.

Phymata clongata n.sp. is allied to *Ph. atra* Melin, 1930, from Bolivia, but is smaller, lateral notch of the pronotum rounded, not angular; lateral angles of the pronotum lower and subangular, almost rounded; PE-angles of the connexiva acute, and slightly produced. Color also may be distinctive, but as the female of *Ph. atra* is not known yet, it is impossible to say.

4. *Phymata variegata* n. sp.

(Fig. 5-6)

Male. *Head* slightly longer than wide through the eyes (22:21), covered with subspiculoid, or spiculoid (occiput) granulation. Frontal processes moderately long, blunt, directed forward, deeply incised in front; preocellar processes slightly raised over frontal portion of the head. Antennae moderately long; proportions of the antennal segments, I to IV, are: 6:10:10:20.

Pronotum rather long and sloping forward, but shorter than wide across the postero-lateral angles (maximal width) (42:60). Anterior angles small, dentiform, divergent; antero-lateral-anterior borders slightly curved, finely denticulate; lateral notch deep, angular, form a slightly obtuse angle; antero-lateral-posterior borders curved and raising; lateral angles form a right, or slightly acute angle; postero-lateral-anterior borders short and sinuate; postero-lateral angles subacute, divergent. Fore disc scabrose and granulate along posterior border; hind disc transversely rugose, but without granulation. Pronotal carinae high, parallel between themselves, and granulate, anteriorly; lower, divergent, and without granulation posteriorly.

Scutellum shorter than wide at the base (16:24); median carina cross-shaped, with longitudinal branch transversely rugose, and lateral branches granulate. Lateral borders with scarce granulation, placed mostly near the tip of the scutellum.

Hemelytra. Corium without granulation; membrane with veins simple.

Abdomen shorter than wide (65:88, actually 94); antero-lateral borders slightly sinuate, then curved; PE-angles slightly produced; lateral angles form a slightly acute angle, the tips of segment V are pointed. Postero-lateral borders slightly sinuate; posterior border widely rounded. Venter very finely granulate.

Propleura with fore border sinuate and finely denticulate, teeth are progressively longer toward the antero-inferior angle. Disc granulate along anterior, inferior and superior (antennal groove) borders; antennal groove reaches to the lateral notch.

Legs. Fore coxae armed with a strong tooth anteriorly, near the base. Fore femora subtriangular, swollen, longer than wide (28:16); disc finely granulate; upper border with a row of setigerous granules.

Color: head and pronotum dark testaceous to chestnut brown; anterior border and the lateral notch of the pronotum dark yellow; small spot on segment IV, and transverse band of the abdomen are chestnut brown to black; ventral side

dark yellow; transverse band across antennal groove, lateral angles of the pronotum and abdomen, fore coxae and fore femora, dark brown to black. The paratype is slightly lighter, and larger.

Total length 6.85 mm. (paratype 7.4); width of the pronotum 3.0 mm. (paratype 3.35); width of the abdomen 4.4 mm. (paratype 4.6).

Holotype: ♂, Brazil, Chapada; deposited in the Drake collection, U. S. National Museum, Washington, D. C.

Paratype: ♂, collected with the holotype; in the collection of the author.

Phymata variegata n.sp. is allied to *Ph. communis* Handlirsch, 1897, but differs from it by: head relatively shorter; lateral angles of the pronotum more directed up and backward; antero-lateral-posterior borders longer and more convex; color is more reddish-brown, with very few black.

5. *Phymata (Euryphymata) pilifera* n. sp.

(Fig. 7-12)

Male. *Head* longer than wide through the eyes (♂-25:22, ♀-25:22). Frontal processes strong, finely denticulate, deeply incised in front, directed up and forward; preocellar processes dentiform, raised over the level of the frontal portion of the head; ocellar processes dentiform and slightly divergent. Proportions of the rostral segments, I to III (visible), are: 3:5:2.5. Proportions of the antennal segments, I to IV, are: ♂-5:10:5:56, ♀-5:10:11:28.

Pronotum shorter than wide across postero-lateral angles (the maximal width) (♂-45:80, ♀-45:78). Anterior angles acute, divergent; antero-lateral-anterior borders deeply and roundly incised anteriorly, then raised as acute angle; lateral notch shallowly sinuate (♂), or absent (♀); antero-lateral-posterior borders angularly raised and denticulate (♂), or slightly curved and finely denticulate (♀). Lateral angles dentiform, directed upward; postero-lateral-anterior borders short, sinuate, and finely denticulate; postero-lateral angles long, acute, directed sideways; postero-lateral-posterior borders widely sinuate and granulate (♂), or almost straight (♀). Fore disc swollen, scabrous, with a cluster of ivory granules in front of a pit. Hind disc finely and sparsely punctured; carinae slightly divergent, granulate anteriorly, with a small knob on the highest point, almost evanescent in the third quarter of their length, then reappearing again in the last quarter, and granulate.

Scutellum shorter than wide at the base (♂-12:20, ♀-12:22). Median carina linear, convex, with a cluster of ivory granulation.

Hemelytra. Corium smooth, with a few granules apically (♂), or without granulation (♀). Membrane with only one closed cell clearly visible, the second cell is obliterated (♂), or subobliterated (♀).

Abdomen is cross-shaped (♂), or rounded posteriorly (♀); much shorter than wide (♂-116:125, actually 133, ♀-116:140, actually 148). Antero-lateral borders straight; PE-angles long, dentiform, almost vertical; connexivum V with a wide, twisted, and denticulate ultra-connexivum, seen from above looks S-shaped (♂), in the female connexivum V is lower; connexivum VI also with ultraconnexivum, firstly convex, then sinuate, provided with a few smaller and two larger teeth (♂); the female has smaller teeth. The tip of the abdomen is different in both sexes: in the male, segment VII is produced backward as a long lobe, deeply

incised in the middle posteriorly, what gives to the abdomen a shape of a cross. In the female, connexivum VII has one tooth in the middle of the border; connexivum VIII is widely rounded, and rectangularly, shallowly incised in the middle posteriorly. The discs of connexiva II to IV each with a large, round, mother of pearl spot; similar but elongate spot is along posterior margin of connexivum VI, and one larger at the base of connexivum VII.

Sterna II to V with sparse granulation along the sutures and laterally; connexiva VI to VII densely granulate on the ventral side.

Propleura densely denticulate at the fore border; densely crenulate at the inferior border; finely punctured on the posterior half of the disc. Antennal groove wide and shallow, reaches to the postero-lateral angles of the pronotum.

Mesosternal cross with the anterior branch long, thin, densely granulate, reaching to the fore border of the mesosternum; hind and lateral branches also granulate.

Legs. Fore coxae with an oblique row of granules, and a single tooth, anteriorly. Fore femora large, longer than wide (δ -38:18, ♀ -37:21), strongly swollen, smooth on the disc, and with a row of small, remote granules on the upper side. The whole disc of the fore femora is covered with long, erect bristles, half as long as the femur wide. Fore tibiae are covered with dense, short, inclined hairs. Fore tarsi present.

Color: brown to sepia, variegated with light brown, and ochraceous; membrane dark brown. The female is lighter: pronotum, with exception of fore disc, is ochre-brown; tergum with orange and reddish tinge in the middle.

Total length: δ -10 mm., ♀ -10.15 mm.; width of the pronotum: δ -4.0 mm., ♀ -3.9 mm.; width of the abdomen: δ -6.25 mm., ♀ -7.0 mm.

Holotype: δ . Jamaica, W. I., St. Thomas, Whitefield Hall—T. H. Farr coll., June 11, 1954; deposited in the Institute of Jamaica, Kingston, Jamaica.

Allotype: ♀ , Jamaica, W. I., St. Ann, Mt. Diablo, Forest Reserve—T. H. Farr coll., June 18, 1960; deposited in the collection of the author.

Phymata pilifera n.sp. is allied to *Ph. superba* Kormilev, 1962, from Haiti. It is of the same aspect and color, only the male of *Ph. pilifera* (the female of *Ph. superba* is yet unknown) has relatively narrower and longer body, particularly segment VII is more produced backward, and postero-lateral angles of the pronotum are more salient. The main difference between these two species is in long, erect bristles on the discs of the fore femora, which are completely absent in *Ph. superba*.

Kelainocoris n.g.

Body very long and narrow; abdomen is narrow at the base and widening backward; connexiva V posteriorly, and the entire VI, together form long, flaring, divergent lobes, directed obliquely back and upward.

Head small, slightly longer than wide through the eyes; frontal processes small, directed forward; preocellar and ocellar processes also small. Head on the upper and lateral surfaces without granulation, with exception of occiput and borders of the antennal groove. Genae small, curved, barely produced. Rostrum with segment I (visible) twice as long as II, II much longer than III. Antennae

three times (δ), or only twice (φ) as long as the head; segment IV very long and cylindrical in the male, shorter and elongately fusiform in the female. Eyes moderately large, exserted; ocelli dorso-lateral, placed equidistant from each other and the hind border of the head.

Pronotum trapezoidal, shorter than wide across postero-lateral angles (the maximal width). Anterior border deeply sinuate; anterior angles short and blunt; antero-lateral-anterior borders finely granulate, almost straight (δ), or firstly sinuate, then curved (φ). Lateral notch short and rather deep; antero-lateral-posterior borders curved; lateral angles small, low, blunt, directed upward, form a slightly acute (δ), or right (φ) angle; postero-lateral-anterior borders short, sinuate (δ), or almost straight (φ); postero-lateral angles larger than lateral, produced sideways, and a little backward, form acute (δ), or almost right (φ) angle; postero-lateral-posterior borders long, sinuate; posterior processes absent; posterior border sinuate. Fore disc small, slightly scabrous, and finely granulate laterally; hind disc sloping forward and backward, unevenly punctured along carinae, velvet-smooth on the median line, transversely rugose along posterior border. Carinae slightly divergent backward, well developed on the whole length, very fine, and densely granulate anteriorly.

Scutellum triangular, small, much shorter than wide at the base; median carina linear, granulate; borders carinate, but without granulation.

Hemelytra reach almost to the tip of the abdomen; corium leathery, very long, without granulation; membrane large; veins of membrane form two large, and a few smaller, closed cells, then simple.

Abdomen very long, narrow at the base, and widening backward, more so in the female. Connexivum narrow on segments II to IV; connexivum V posteriorly, and the entire connexivum VI, together form long, flaring lobes, directed obliquely up and backward, and divergent, more so in the female. The tip of the abdomen is produced backward, and deeply, angularly incised in the male; widely rounded in the female. PE-angles produced as blunt tubercles, somewhat inclined backward. Venter longitudinally rugose laterally. Sterna II to IV almost fused together, sutures between them barely discernible. Spiracles very small.

Prosternum short, stridulatory groove moderately deep. Mesosternum twice as long as prosternum, flat; mesosternal cross with fore branch straight, low, thin, and remotely granulate. Propleura long and narrow, sparsely granulate anteriorly, and finely punctured posteriorly; fore border crenelate; antero-inferior angles acute, directed fore and downward; antennal groove reaches to the lateral notch of the pronotum.

Legs: fore coxae shorter than fore femora, unarmed. Fore femora subtriangular, long and flat, slightly scabrous; upper border with a row of small, remote granules. Fore tibiae and fore tarsi as in *Phymata*. Middle and hind legs as in *Neoanthylla*; femora finely denticulate on the lower side; tibiae convex, rounded on the upper surface, neither carinate laterally, nor sulcate medially. Tarsi as in *Neoanthylla*.

Type species: *Kelainocoris farri* n.sp.

Kelainocoris n.g. is allied to *Neoanthylla* Kormilev, 1951, but differs from it mainly by: the first rostral segment (visible) is twice as long as the second, and by fore femur being subtriangular, moderately swollen, and scabrous.

1. *Kelainocoris farri* n.sp.

(Fig. 14-19)

Female. *Head* slightly longer than wide through the eyes (♀ -21:17.5, ♂ -21:17.5); frontal processes small, directed forward, compressed laterally, and contiguous at their tips. Proportions of the rostral segments, I to III (visible), are: ♀ -16:9:6, ♂ -15:8:5. Proportions of the antennal segments, I to IV, are: ♀ -5.5:7.5:8:20, ♂ -5.5:6:2.5:50.

Pronotum much shorter than wide across postero-lateral angles (♀ -44:64, ♂ -42:63); fore lobe much narrower than the hind lobe (♀ -33:64, ♂ -36:63). *Scutellum* shorter than wide at the base (♀ -11:19, ♂ -11:19).

Abdomen much longer than wide across segment VI: ♀ -121:61 (length to the tip of the abdomen), or 125:61 (length to the tip of the lobes); ♂ -127.5:51 (length to the tip of abdomen), or 145:51 (length to the tip of the lobes). Actual width across the lobes is: ♀ -130, ♂ -86. Hypopygium of the male small, rugose, longer than wide (19:15).

Legs: fore coxae $\frac{3}{5}$ as long as fore femora; fore femora longer than wide (♀ -40:16, ♂ -38:15). Middle and hind legs as in the female.

Color: female dark brown, venter reddish brown, connexiva II to V, and VII, pale ochraceous in the middle; middle and hind femora, tibiae, and tarsi, pale ochraceous. Male dark brown to black; venter reddish brown, partially dark brown, with hypopygium ochraceous.

Total length: ♀ -9.65 mm. (to the tip of abdomen), or 10.1 mm. to the tip of lobes; ♂ -10.15 mm. (to the tip of abdomen), or 11.0 mm. (to the tip of lobes). Width of the pronotum: ♀ -3.20, ♂ -3.15 mm. Width of the abdomen: ♀ -3.05 mm. (abdomen proper, without lobes), or 6.5 mm. (across the lobes); ♂ -2.55 mm. (abdomen proper), or 4.3 mm. (across the lobes).

Holotype: ♀ , Jamaica, W. I., Portland, Hardwar Gap—T. H. Farr coll. Aug. 6, 1961; deposited in the Institute of Jamaica, Kingston, Jamaica.

Allotype: ♂ , Jamaica, W. I., St. Andrew, Hardwar Gap—T. H. Farr coll.; deposited in the collection of the author.

It is a pleasure to dedicate this striking species to Dr. Thomas H. Farr, who collected it, and by whose kind office I have had a privilege to study this interesting lot from the West Indies.

II. Subfamily MACROCEPHALINAE A. S., 1843

Genus *Macrocephalus* Swederus, 17871. *Macrocephalus testaceus* n.sp.

(Fig. 20)

Female. Ovate; granulation rounded and spare; punctures very fine, with exception of the base of the scutellum.

Head cylindrical, longer than wide through the eyes (27:19); anteocular portion of the head slightly narrower, and distinctly shorter than postocular. Granulation of the head is rather flat and subobliterated on the upper surface, slightly more prominent on the sides. Antennae short and slender, only segment IV is larger and wider; proportions of the antennal segments, I to IV, are: 7.5(4):6(3.5):7(3):12(7), figures in brackets represent the maximal width of the segment.

Pronotum subtrapezoidal, flattened, much narrower anteriorly, and abbreviated behind the lateral angles; shorter than wide across the lateral angles (50:62); fore lobe almost half as wide at the base as the hind lobe across lateral angles (33:62). Anterior border sinuate; anterior angles form a slightly acute angle; antero-lateral borders long and slightly sinuate; lateral angles rounded, slightly incised behind the tip, and a little raised; postero-lateral borders about one third as long as the antero-lateral, firstly convex, then sinuate; posterior border slightly convex in the middle. Fore disc slightly swollen, with subobliterated, concolor granulation, and with a deep pit in the middle. Hind disc slightly depressed medially, moderately swollen laterad of it, depressed again mesad of humeri; finely punctured, and with dispersed, subobliterate, concolor granulation between the punctures. Antero-lateral borders with a triple or double row of fine, whitish granulation, very conspicuous by its color.

Scutellum long, tongue-shaped, almost reaching to the tip of abdomen, covering the whole membrane, but leaving the corium exposed (102:48). The base is triangularly raised; median ridge tapering backward, clearly visible on the whole length from the base to the tip of the scutellum. Disc roughly punctured on triangular elevation, and laterad of it, very finely punctured on the rest of the scutellum.

Hemelytra reach to the tip of the abdomen; corium very finely punctured; membrane large, with reduced venation forming two large, closed cells (M and Cu, and Cu and PCu).

Abdomen cordate, longer than wide (95:90). Almost entire connexivum, and a narrow strip of tergum, are exposed. Lateral borders strongly curved anteriorly, less so posteriorly; the tip of the abdomen evenly rounded. Discs of connexiva rugose, and with sparse, subobliterate granulation. PE-angles not protruding. Venter very convex, with flattened, rough, whitish granulation. The cross of mesosternum high and narrow, without granulation.

Legs: fore femora very long (45:17), swollen, with a row of small, setigerous granules on the upper border, and with a few, flattened, subobliterate granules on the exterior surface. Fore tibiae without tarsi.

Color: uniformly testaceous; head paler; granulation of the antero-lateral borders of the pronotum, venter, and fore femora, whitish.

Holotype: ♀, Hispaniola, Dominican Republic, Puerto Plata—M. W. Sanderson & T. H. Farr coll., May 10, 1959; deposited in the collection of the author.

Macrocephalus testaceus n.sp. should belong to the subgenus *Lophoscutus* Kormilev, 1951 (parameres?). It is allied to *Macrocephalus drakei* Kormilev, 1962, from Cuba, but differs from it by: lateral angles of the pronotum slightly incised behind the tip, pronotum relatively longer, and abdomen relatively narrower.

2. *Macrocephalus dominicanus* n.sp.

(Fig. 21)

Female. Elongately ovate; head, fore disc of the pronotum, scutellum, and fore femora, roughly granulate.

Head longer than wide through the eyes (♀-22:17.5, ♂-20:16.5); deeply, angularly incised in front; anteocular portion of the head slightly narrower, and shorter, than postocular. Eyes large, exerted. Head roughly granulate laterally.

Antennae short, and slender, only segment IV is large and thick; proportions of the antennal segments, I to IV, are: ♀-6(3):3(3):5(2.5):10:5.5, ♂-7(3):3(3):6(3):12(5).

Pronotum subhexagonal, rather flat, half as long as wide across lateral angles (♀-30:50, ♂-22:44). Anterior angles small, acute, granulate, and slightly divergent; antero-lateral borders sinuate, and granulate along the fore lobe; lateral angles form a right angle with acute tip; neither raised, nor incised; postero-lateral borders slightly convex in the middle, and slightly sinuate laterally; posterior border convex. Fore disc moderately swollen, covered with dispersed, spare, rough, rounded granulation; hind disc punctured, and with a few scattered, round granules; carinae thin, divergent, and evanescent at $\frac{3}{4}$ of the length of the hind disc, with a few granules at the base.

Scutellum long, tongue-shaped, covers the entire membrane, but leaves corium exposed, reaches to the tip of the abdomen, longer than wide (♀-73:35, ♂-63:30). The base is swollen in the shape of a halfmoon; median carina enlarged at the base, then thin, slightly tapering toward the tip. Disc finely punctured, more roughly laterad of basal elevation, and with dispersed, whitish granulation.

Hemelytra reach to the tip of the abdomen; corium with spare granulation, similar to that of the scutellum.

Abdomen longer than wide (♀70:63, ♂60:48); the maximal width across segment III. Connexivum narrow, with spare, subobliterate granulation; at junctions of connexiva slightly incised, so that entire connexivum looks slightly festooned. Venter and pleura without granulation.

Legs: fore femora subtriangular, swollen at the basal half, and with spare, subobliterate granulation. Fore tibiae without tarsi.

Color: Female is pale testaceous to orange-yellow, with greenish tinge (immature); male ochraceous with greenish tinge (also immature); posterior half of the scutellum laterad of the median carina, apical $\frac{2}{3}$ of the corium, and transversal band of the abdomen, all brown to reddish brown; granulation mostly whitish.

Total length: ♀-6.05, ♂-5.65 mm.; width of the pronotum: ♀-2.5, ♂-2.2 mm.; width of the abdomen: ♀-3.15, ♂-2.4 mm.

Holotype: ♀, Hispaniola, Dominican Republic, Valle Nuevo—M. W. Sanderson & T. H. Farr coll., May 6, 1959; deposited in the Institute of Jamaica, Kingston, Jamaica, W. I.

Allotype, ♂, and *Paratype*, ♀, collected with the holotype; in the collection of the author.

Macrocephalus dominicanus n.sp. belongs to the subgenus *Lophoscutus* Kormilev, 1951. It is allied to *Macrocephalus* (*Lophoscutus*) *lepidus* Stål, 1862, from Central America, but differs from it by: longer body, particularly abdomen; larger eyes; head much deeper incised in front; scutellum very finely punctured, and with dispersed, fine, whitish granulation between the punctures; color is also slightly different.

3. *Macrocephalus pulchellus* Westwood, 1843

Macrocephalus pulchellus Westwood, 1843, Trans. Ent. Soc.; 3: 25.

1 ♀ Jamaica, W. I., St. Andrew, Hermitage Road—T. H. Farr coll., July 15, 1959; deposited in the Institute of Jamaica, Kingston, Jamaica.

4. *Macrocephalus leucographus* Westwood, 1843

Macrocephalus leucographus Westwood, 1843, Trans. Ent. Soc.; 3: 25.

1 ♂, Hispaniola, Dominican Republic, Constanza—M. W. Sanderson & T. H. Farr coll., May 6, 1959; deposited in the collection of the author.

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TWO RARE ANOPLURA FROM KENYA

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Through the kindness of Dr. Theresa Clay of British Museum (Natural History) I had the privilege of examining the specimens of Anoplura collected in Kenya by Dr. G. B. Corbet during 1960-62. Among other interesting finds were the hitherto unknown male of *Hoplopleura rukenyae* Ferris and a good series of *Polyplax praecisa* (Neumann), a species known previously only from the poorly preserved type material which left its status in some doubt. Both are described and figured below.

***Hoplopleura rukenyae* Ferris**

(Figs. 1-5)

Hoplopleura sukenyae Ferris, 1921, Contributions toward a monograph of the sucking lice, v. 2, pt. 2, p. 86, fig. 51 (misspelling).

Hoplopleura rukenyae, Ferris, 1951, The sucking lice, p. 143 (emendation). Johnson, 1960, U. S. D. A. Tech. Bul. no. 1211:17.

The holotype female was taken from *Mus triton*, Mt. Rukenya, British East Africa. There are no other records of its occurrence.

New record.—One male from *Mus triton*, Kerugoya, Kenya, 22 Sept. 1960, G. B. Corbet no. 236.

Diagnosis.—Except for sexually-determined differences, the male *rukenyae* recorded above agrees closely in morphology with the original description of the female. It may be immediately separated from other described African *Hoplopleura* species by having the pseudopenis extended into a long, acute point (fig. 3). As in the female, there are medium-sized setae on the thoracic dorsum (fig. 1); the apical lobes of the paratergal plates are scaly, plate III has both